2018 Community-Based Care Chartbook

Resident and Community Characteristics Report on Assisted Living, Residential Care, Memory Care

A study completed by The Institute on Aging at Portland State University
In partnership with Oregon Department of Human Services

Paula Carder, Ph.D., Ozcan Tunalilar, Ph.D., Sheryl Elliott, M.U.S, & Sarah Dys, M.P.A.









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About the Institute on Aging at Portland State University (IOA/PSU)

IOA/PSU strives to enhance understanding of aging and facilitates opportunities for elders, families, and communities to thrive.

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About Oregon Department of Human Services

DHS is Oregon's principal agency for helping Oregonians achieve wellbeing and independence through opportunities that protect, empower, respect choice and preserve dignity, especially for those who are least able to help themselves.

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Oregon Community-Based Care Chartbook, 2018: Assisted Living, Residential Care, and Memory Care Communities Section E1 -Sample

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Section E1: Sample

Table E1.1: Number of AL/RC/MC Facilities and Questionnaires Distributed

AL/RC/MC as of December 2017	524
MC co-located with an AL/RC	32
Number of questionnaires that were sent to AL/RC/MC	556
AL/RC/MC that responded (70%)	384

SOURCE: Oregon CBC Survey 2018: AL, RC, MC, Table E1

Table E1.2: Survey Mailing and Report Dates, 2014 to 2018

Round	Sample Collected from DHS	Survey Mailing	Data Analysis Findings Reported
1	November, 2014	January, 2015	May, 2015
2	November, 2015	January, 2016	May, 2016
3	November, 2016	December, 2016	May, 2017
4	November, 2017	December, 2017	May, 2018

SOURCE: Oregon CBC Survey 2018: AL, RC, MC, Table E2

Section 1 – Assisted Living, Residential Care, and Memory Care Communities^a

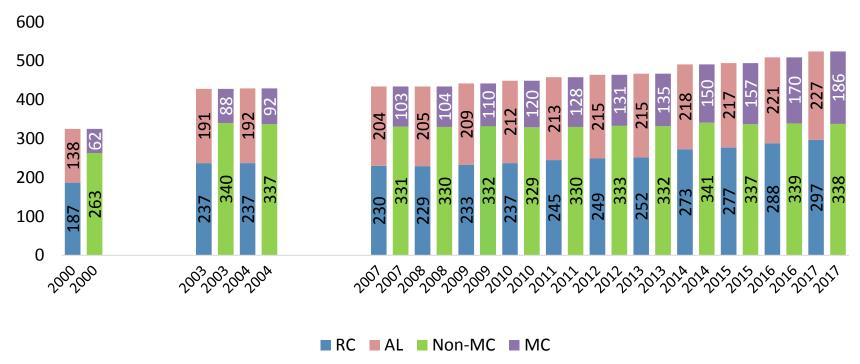
Table 1.1: Number of Licensed Settings and Licensed Capacity as of November 2017

	# of Settings	Licensed Capacity	# of Units
AL	227 ¹	15,264	12,805
RC	297 ¹	11,510	9,374
Total AL/RC Facilities	524 ¹	26,774	22,179
AL/RC with a MC endorsement	186	6,574	-

¹This figure includes all AL or RC facilities, including those that have an MC endorsement.

^a For literature, references, and more information about this study, see the Oregon CBC Survey 2018 available at: http://www.oregon.gov/DHS/SENIORS-DISABILITIES/Pages/publications.aspx and https://www.pdx.edu/ioa/oregon-community-based-care-project

Figure 1.1: Change in Number CBC Settings, by Type, 2000-2017



- The number of CBC settings increased from 325 in 2000 to 524 in 2017.
- The primary growth in the number of AL/RC facilities last year is due to an increase in MCs.

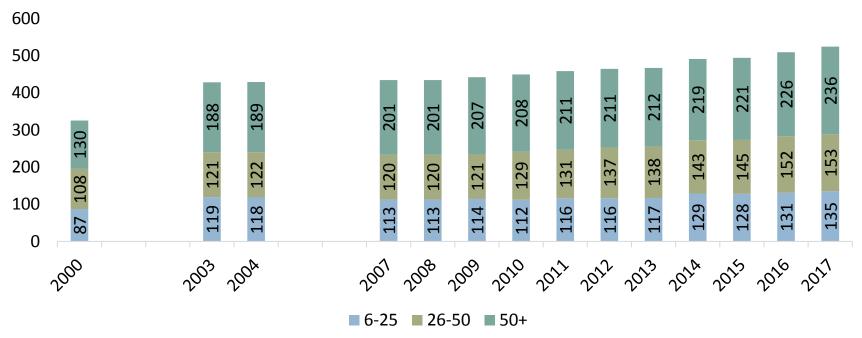
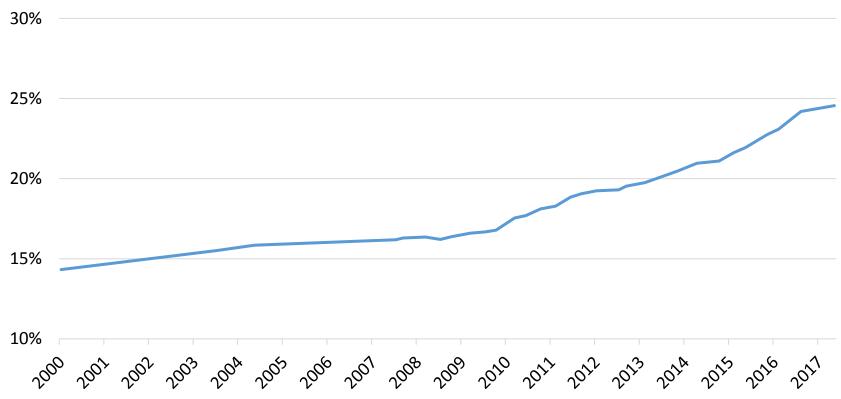


Figure 1.2: Change in Facility Size, All Facilities, 2000-2018

- There were minimal changes in the distribution of smaller and larger facilities over time between 2000 and 2017.
- In June 2000, 27 percent (87 out of 325) of all facilities had a licensed capacity of between 6 and 25 residents, 33 percent were licensed for 26 to 50 residents, and the remaining 40 percent had a licensed capacity of 51 and higher.
- By 2017, the corresponding figures were 26, 29, and 45 percent.

Figure 1.3: Change in Capacity of MC over Time 2000-2017 (Data from Rosters)



- The capacity among MC communities has tripled since 2000.
- In 2000, MC accounted for about 14% of all total capacity. By 2017, that figure increased to 25%.

Table 1.2: Licensed Capacity and Occupancy Rates of Responding Facilities, 2018

Setting Type	Licensed Capacity	# of Current Residents	Occupancy Rate
AL	10,057	7,741	77%
RC	3,296	2,478	75%
MC	4,314	3,664	85%
Total	17,667	13,883	79%

• Of the 384 facilities that completed the questionnaire, the highest licensed capacity was reported by AL facilities and the highest occupancy rate was reported by MC communities.

Table 1.3: Response Rates by Community Type and Region

	AL	RC	MC	Combined	Total
	% (n)	% (n)	% (n)	% (n)	% (n)
Portland Metro	62% (48)	76% (40)	63% (32)	78% (14)	67% (134)
Willamette Valley	68% (49)	60% (12)	70% (40)	64% (7)	68% (108)
Southern Oregon	69% (20)	71% (15)	63% (15)	100% (2)	68% (52)
Eastern Oregon	82% (36)	64% (14)	86% (19)	100% (1)	79% (70)
Total	69% (153)	70% (81)	69% (106)	69% (22)	70% (364)

Portland Metro = Counties of Clackamas, Columbia, Multnomah, Washington

Willamette Valley = Counties of Benton, Clatsop, Lane, Lincoln, Linn, Marion, Polk, Tillamook, Yamhill

Southern Oregon = Counties of Coos, Curry, Douglas, Jackson, Josephine

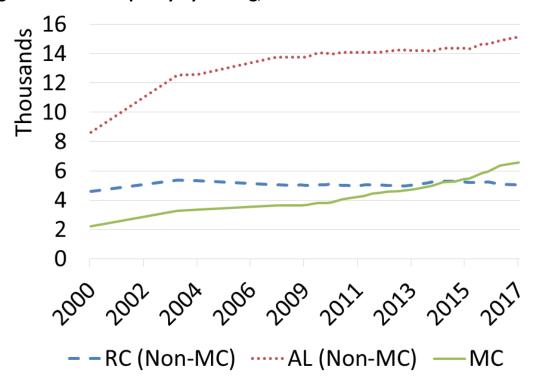
Eastern Oregon = Counties of Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler

Note: There were no licensed AL/RC facilities located in Lake and Sherman counties.

- A total of 364 facilities responded to the survey, for a response rate of 70 percent.
- Response rates were very similar across setting types, but differed somewhat by region. Facilities located in Eastern Oregon were more likely to respond compared to other regions.

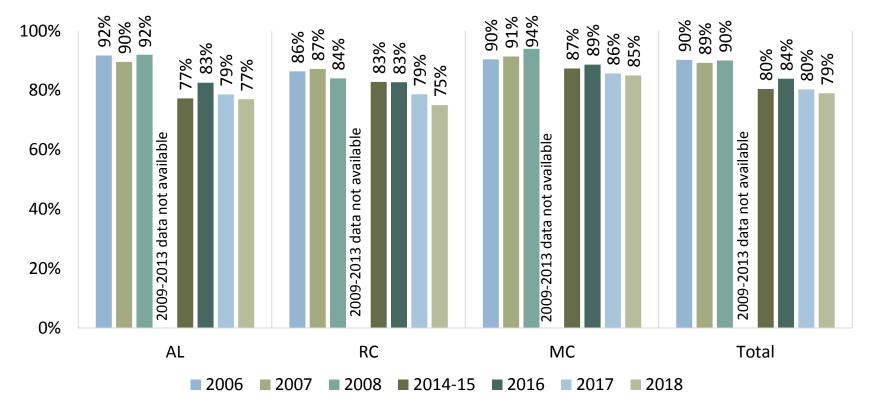
SOURCE: Oregon CBC Survey 2018: AL, RC, MC, Table A1

Figure 1.4: Change in Licensed Capacity by Setting, 2000-2017



- Figure 1.4 shows the changes that occurred in AL, RC, and MC capacity between 2000 and 2017.
- During this period, the greatest increases in AL capacity occurred between 2000 and 2009.

Figure 1.5: Change in Occupancy by Setting, 2006 – 2018



• Occupancy rates appear to have declined since 2006, with the rate of decline in MCs lower compared to AL and RC.

Section 2 – Community Services and Policies

Table 2.1: Resident Needs and Behaviors That Would Typically Prompt a Move-Out Notice

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
Non-payment	89 (139)	76 (75)	84 (108)	84 (322)
Hitting/acting out with anger	87 (136)	72 (71)	62 (79)	75 (286)
Lease violation other than non- payment	51 (80)	45 (45)	34 (44)	44 (169)
Wandering outside	65 (102)	37 (37)	4 (5)	38 (144)
Two-person transfer	37 (58)	34 (34)	7 (9)	26 (101)
Sliding-scale insulin shots	7 (11)	7 (7)	5 (6)	6 (24)
None	3 (4)	5 (5)	4(5)	4(14)

- The most common reason a facility gave a move-out notice to a resident was non-payment of facility fees, followed by hitting/acting out with anger.
- MC communities were far less likely to give a move-out notice for two-person transfer or wandering outside.

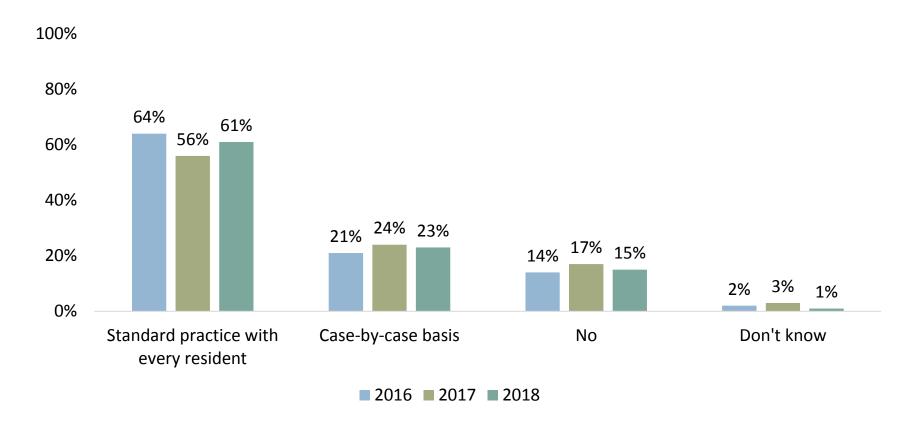
Figure 2.1: Use of Fall Risk Assessment by Setting, 2018



• Eighty-four percent of CBC settings used a fall risk assessment tool to screen every resident as standard practice or on a case-by-case basis.

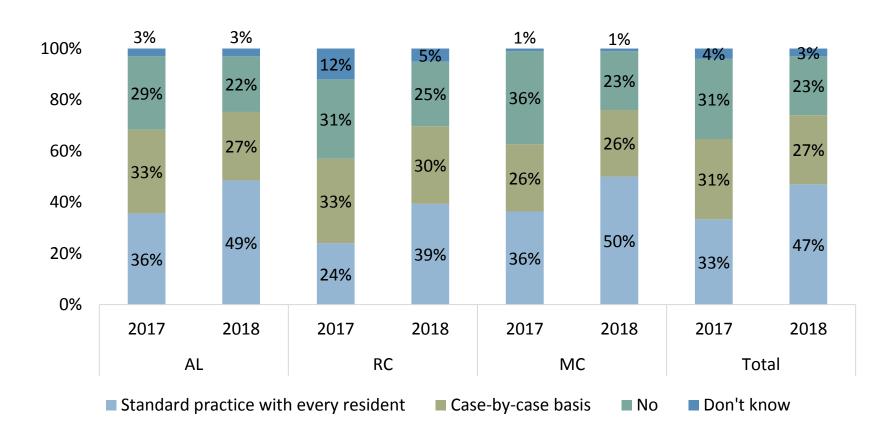
Oregon Community-Based Care Chartbook, 2018: Assisted Living, Residential Care, and Memory Care Section 2 – Community Services and Policies

Figure 2.2: Use of Fall Risk Assessment over Time, All Facilities, 2016-2018



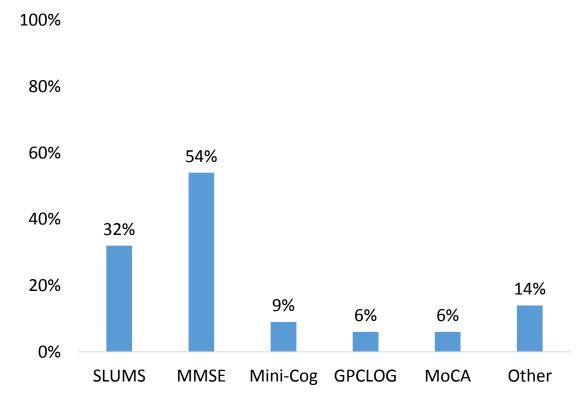
• The use of a fall risk assessment tool has remained relatively consistent since this question was first asked, in 2016.

Figure 2.3: Use of Cognitive Screening Tool by Setting, 2017-2018



- Overall, 74 percent of providers used a standard cognitive screening tool as standard practice or on a caseby-case basis.
- A larger percentage of communities reported using a tool as standard practice in 2018 compared to 2017.

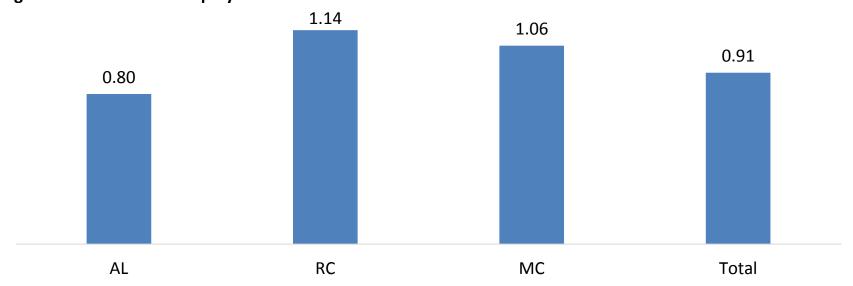
Figure 2.4: Percent of Facilities That Use a Specific Cognitive Assessment Tool among Facilities that Reported Using a Cognitive Assessment Tool



- Of the facilities that reported using a standard cognitive assessment tool, either as a regular practice or on a case-by-case basis, most reported using Mini Mental State Examination (MMSE), followed by the St. Louis Mental Status (SLUMS).
- Fourteen percent of facilities reported using other tools not listed here.

Section 3 – Community-Based Care Staff

Figure 3.1: Ratio of All Employees to Residents



- Two hundred and eighty facilities provided information about the total number of residents and number of total staff.
- In 2017, staff ratios were 0.84, 1.12, and 1.10 for AL, RC, and MC respectively. Therefore, current staff ratios among facilities are nearly identical to those described in the 2017 report.

Table 3.1: Percentage of Care-Related Staff Employed Part-Time or Full-Time, by Employee Categories

	Part-time	Full-time	Total
	% (n)	% (n)	% (n)
RN	36 (110)	64 (192)	5 (302)
LPN/LVN	17 (18)	83 (85)	2 (103)
CNA	20 (54)	80 (211)	4 (265)
CMA	4 (6)	96 (156)	2 (162)
Personal care staff	16 (818)	84 (4,223)	78 (5,041)
Social worker	13 (5)	87 (33)	1 (38)
Activities director/staff	24 (90)	76 (285)	6 (375)
Residential care coordinator	6 (12)	94 (201)	3 (213)
Total	17 (1,113)	83 (5,386)	6,499

- Responding facilities employed a 6,499 care-related staff, who represented 67 percent of all CBC employees.
- Of all care-related staff in the 270 responding facilities, 17 percent were employed part-time and 83 percent were employed full-time.
- Most—84 percent—of the personal care staff were employed full-time, and 64 percent of RNs were employed full-time.

Table 3.2: Percentage of Communities with at least one part-time or full-time staff by community type and employee categories, 2018

	AL (n = 127)		AL (n = 127) RC (n = 62)		MC (n = 81)	
	Part-time % (n)	Full-time % (n)	Part-time % (n)	Full-time % (n)	Part-time % (n)	Full-time % (n)
RN	24 (30)	76 (96)	58 (36)	42 (26)	32 (26)	60 (49)
LPN/LVN	7 (9)	22 (28)	5 (3)	16 (10)	4 (3)	25 (20)
CNA	6 (7)	19 (24)	10 (6)	29 (18)	2 (2)	22 (18)
CMA	2 (2)	16 (20)	2 (1)	10 (6)	1 (1)	12 (10)
Personal Care Staff	54 (69)	95 (121)	68 (42)	94 (58)	52 (42)	93 (75)
Social Workers	0 (0)	4 (5)	5 (3)	10 (6)	1 (1)	1 (1)
Activities Staff	22 (28)	89 (113)	21 (13)	55 (34)	31 (25)	68 (55)
RCC	3 (4)	75 (95)	5 (3)	45 (28)	5 (4)	60 (49)

Notes. AL = assisted living, RC = residential care, MC = memory care. RN = registered nurse, LPN = licensed practical nurse, LVN = licensed vocational nurse, CNA = certified nursing assistant, CMA = certified medication aide, RCC = residential care coordinator.

- A greater percentage of ALs compared to MCs and RCs employed at least one full-time RN.
- A larger share of RCs have at least one full time CNA on staff compared to MCs and ALs.

SOURCE: Oregon CBC Survey 2018: AL, RC, MC, Table B4

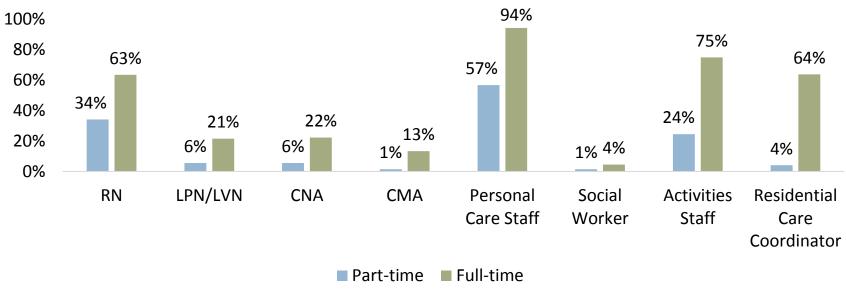


Figure 3.2: Percentage of Facilities With At Least One Part-Time or Full-Time Staff by Employee Categories

• The most commonly employed staff type across all communities was personal care staff.

Table 3.3: Percentage of Care-Related Staff Employed Part-Time or Full-Time, 2017-2018

	Part-time		Full-time	
	2017	2018	2017	2018
RN	33%	34%	68%	63%
LPN/LVN	7%	6%	20%	21%
CNA	6%	6%	21%	22%
CMA	5%	1%	14%	13%
Personal care staff	63%	57%	93%	94%
Social worker	3%	1%	5%	4%
Activities director/staff	32%	24%	72%	75%
Residential care coordinator	-	4%	-	64%

- There were very few changes in the percentage of CBC settings with at least one part time or full time employee by staff category between 2017 and 2018.
- The percentage of facilities employing at least one part-time personal care staff or activities director or activities staff, and at least one full time RN decreased between 2017 and 2018.

SOURCE: Oregon CBC Survey 2018: AL, RC, MC, Table B5

Table 3.4: Staffing Levels by Staff and Facility Type

	AL		RC		MC		Total					
	2016	2017	2018	2016	2017	2018	2016	2017	2018	2016	2017	2018
RN	0:05	0:06	0:05	0:12	0:14	0:11	0:08	0:10	0:09	0:08	0:09	0:08
LPN/LVN	0:00	0:00	0:01	0:00	0:02	0:01	0:04	0:02	0:02	0:01	0:01	0:01
CNA/CMA	0:05	0:06	0:04	0:17	0:13	0:06	0:14	0:09	0:06	0:11	0:08	0:05
Personal care staff	1:30	1:44	1:40	2:33	2:14	2:53	2:46	3:20	3:18	2:10	2:20	2:26
Social worker	0:00	0:00	0:00	0:01	0:01	0:00	0:00	0:00	0:00	0:00	0:00	0:00
Activities director/staff	0:06	0:07	0:07	0:07	0:10	0:10	0:12	0:12	0:11	0:08	0:09	0:09
Total	1:49	2:05	1:58	3:12	2:57	3:24	3:26	3:54	3:48	2:41	2:50	2:51

- The staffing levels were highest in MC communities compared to AL and RC.
- Compared to last year's report, staffing levels in AL and MC communities decreased and RCs experienced a 27-minute increase.

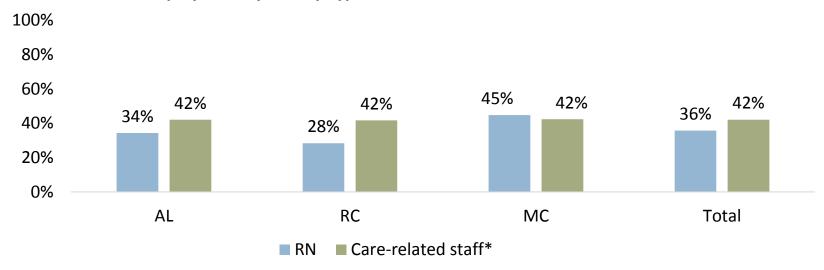
100% 80% 70% 71% 69% 69% 69% 66% 66% 66% 60% 40% 20% 0% AL RC MC Total ■ Care-related staff* RN

Figure 3.3: Percentage of RNs and Care-Related Staff Employed in Their Facility for More Than Six Months

Notes: *Excludes RNs. AL = assisted living, RC = residential care, MC = memory care.

• Compared to RNs, there was slightly more variation in the proportions of other care-related staff who were employed for more than six months by facility type, 71 percent in RCs compared to 66 percent in both AL and MCs.

Figure 3.4: RNs and Other Care-Related Staff That Left Employment for Any Reason in the Last 6 Months as a Percent of Total Current Employment by Facility Type, 2018



- 36% of RNs and 42% of care-related staff left employment in the prior 6 months.
- Among other care-related staff types, 42 percent separated from employment, and this finding was consistent among all facility types.

Section 4 – Rates, Fees, and Medicaid Use

Table 4.1: Average Monthly Private-Pay Charges by Setting, 2018

	AL	RC	MC	Total
Average base monthly charge	\$3,405	\$3,936	\$5,069	\$4,095
Minimum	\$1,235	\$1,200	\$1,200	\$1,200
Maximum	\$8,160	\$9,700	\$9,900	\$9,900
*Average total monthly charge	\$3,959	\$4,497	\$5,620	\$4,638
Minimum	\$2,216	\$1,800	\$3,500	\$1,800
Maximum	\$8,000	\$9,700	\$9,900	\$9,900

^{*}Average total monthly charge includes services

- On average, the total monthly charge for MC was \$5,620, followed by RCs (\$4,497) and ALs (\$3,959).
- For both MC and RC the highest base monthly charge exceeded \$9,000 per month, and exceeded \$8,000 among AL.

Oregon Community-Based Care Chartbook, 2018: Assisted Living, Residential Care, and Memory Care Section 4 – Rates, Fees, and Medicaid Use

Table 4.2: Total Monthly Charge by \$2,000 Increments and Setting

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
Less than \$2,000	0 (0)	2 (2)	0 (0)	1 (2)
\$2,001 to \$4,000	57 (87)	46 (41)	2 (2)	36 (130)
\$4,001 to \$6,000	41 (63)	35 (31)	69 (82)	49 (176)
\$6,001 to \$8,000	1 (2)	12 (11)	25 (29)	12 (42)
\$8,001 or more	0 (0)	4 (4)	4 (5)	3 (9)

Table 4.3: Monthly Private-Pay Charges by Setting (Excluding Outliers*)

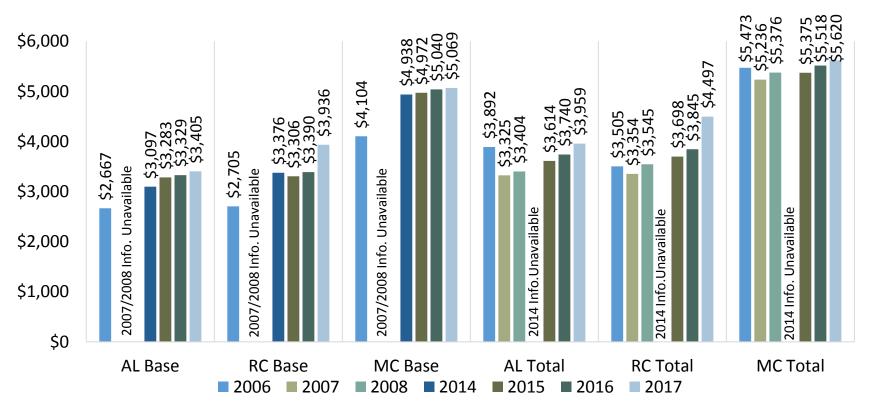
	AL	RC	MC
Average base monthly charge	\$3,378	\$3,805	\$4,949
Average total monthly charge (including services)	\$3,889	\$4,270	\$5,459

^{*}A small number of outliers can affect the average. We define outliers as values that fall outside (above or below) the upper/lower quartile plus/minus 3/2 interquartile range.

- To better show the range of monthly rates, the average total and base monthly rates in \$2,000 increments are reported.
- After excluding outliers (amounts that are much greater or less than most), the average base and total monthly charges were slightly less.

SOURCE: Oregon CBC Survey 2018: AL, RC, MC, Table B6 & B7

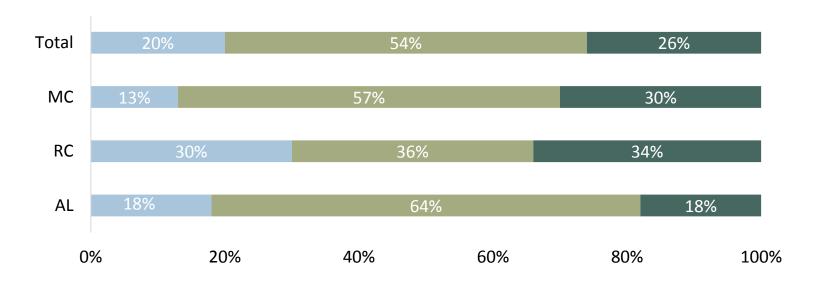
Figure 4.1: Changes in Base and Total Monthly Private Pay Charges between 2006 and 2018



Note: All charges are expressed as inflation-adjusted December 2017 dollar amounts.

- Between 2006 and 2017, the average base monthly charge outpaced inflation.
- The inflation-adjusted percentage increase between 2006 and 2018 was 46 percent for RC, 28 percent for AL, and 24 percent for MC.

Figure 4.2: Medicaid Utilization by Facility Type



■ No residents use Medicaid ■ 1 to 66% of residents use Medicaid ■ More than 66% of residents use Medicaid

• Among responding facilities, 42% of residents paid using Medicaid funds. Among responding facilities (with or without a Medicaid contract), 20% had no current Medicaid residents.

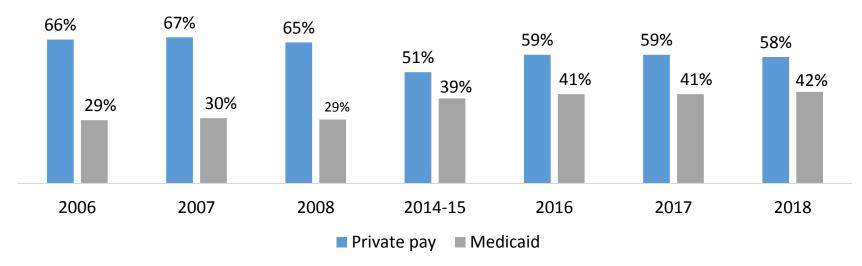


Figure 4.3: Change in Payer Source over Time, 2006-2018

Note: In 2017 and 2018, "private pay" reflects percentage of all residents who paid using sources other than Medicaid

Although it appears that the percent of residents who were Medicaid beneficiaries increased after 2008, some of this increase is likely due to differences in how payment sources were measured (number of residents vs. percent of revenue) for 2006 and 2007. The observed increase in the percent of Medicaid beneficiaries after 2008 can be attributed to differences in how payment sources were measured (number of residents vs. percent of revenue) as well as structural (e.g., changes in eligibility criteria) and demographic (aging population) changes that occurred in Oregon.

Oregon Community-Based Care Chartbook, 2018: Assisted Living, Residential Care, and Memory Care Section 4 – Rates, Fees, and Medicaid Use

Table 4.4: Additional Fees for Services

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
Meals delivered to resident's room	74 (110)	45 (38)	28 (31)	52 (179)
Transfer that requires 2 staff	74 (79)	63 (44)	51 (59)	62 (182)
Staff escort resident to medical appointments	61 (56)	68 (48)	55 (46)	61 (150)
Transport to recreation	12 (15)	13 (8)	14 (13)	13 (36)
Use of a pharmacy other than preferred	66 (95)	48 (41)	66 (74)	62 (210)

Note: Estimates may differ from previous years' because the current year's data focus on facilities that offer a particular service instead of all facilities.

- AL were more likely to charge a fee for 2-person transfer (74 percent) than RC (63 percent) or MC (51 percent).
- Both AL and MC communities were more likely to charge for use of a pharmacy other than the facility-preferred one (66 percent) than RC (48 percent).
- AL facilities were far more likely (74 percent) compared to RC (45 percent) or MC (28 percent) to charge a fee for regular meal delivery.

SOURCE: Oregon CBC Survey 2018: AL, RC, MC, Table B12

\$6,000 \$4,443 \$4,329 \$4,333 \$4,300 \$4,282 \$4,253 \$4,160 \$4,148 \$4,095 \$5,000 \$2,853 \$4,000 \$2,074 \$1,996 \$2,021 \$2,003 \$2,019 \$3,000 \$1,985 \$1,953 \$1,928 \$1,947 \$1,713 \$2,000 \$1,785 \$1,739 \$1,716 \$1,709 \$1,684 \$1,678 \$1,664 \$1,429 \$1,000 \$0 Jan-08 Jan-09 Jan-12 Jan-16 Jan-10 Jan-11 Jan-13 Jan-14 Jan-15 Jan-17 →AL →RC →MC

Figure 4.4: Changes in Inflation-Adjusted (2017 dollars) Reimbursement Rates Between 2008 and 2017

Note: These rates include room and board and are for the lowest service level. All rates have been adjusted for inflation (to December 2017 dollars).

- Since 2008, Medicaid reimbursement rates remained fairly constant in real (inflation-adjusted) dollar terms across all facilities, even though the rates have increased in nominal (unadjusted) terms.
- This pattern suggests that Medicaid reimbursement rates kept up with inflation, but probably not with the increases in real charges.

Table 4.5: Estimated Annual Profession Charges for AL, RC, and MC communities in Oregon

Que	estionnaire Respondent Facilities	AL	RC	MC	Total	
Priv	rate Pay					
	Total current residents	7,573	2,425	3,645	13,643	
-	Total current Medicaid beneficiaries	3,063	937	1,740	5,740	
=	Total current private pay residents	4,510	1,488	1,905	7,903	
Χ	Average total monthly charge incl. services	\$3,959	\$4,497	\$5,620		
=	Total private pay charges	\$17,856,276	\$6,691,329	\$10,705,942	\$35,253,547	
Oth	er (Non-Respondent) Facilities					
Priv	ate Pay					
	Licensed capacity	5,091	1,770	2,274		
Χ	Occupancy rate*	0.77	0.75	0.85		
=	Estimated total current residents	3,920	1,328	1,933	7,180	
Х	Estimated % of Medicaid residents	38%	42%	34%		
=	Estimated total Medicaid beneficiaries	1,504	552	666	2,722	
	Estimated total current residents	3,920	1,328	1,933	7,180	
-	Estimated total Medicaid beneficiaries	1,504	552	666	2,722	
=	Estimated total private pay residents	2,417	776	1,266	4,459	
Х	Average total monthly charge incl. services	\$3,959	\$4,497	\$5,620		
=	Total est. charges for private pay residents	\$9,567,570	\$3,487,591	\$7,117,517	\$20,172,679	
		Estimates Total Anı	Estimates Total Annual Private Pay Charges			
		Total Annual Medio (Data from DHS)	Total Annual Medicaid Charges (Data from DHS)			
		Total Annual Profes	ssion Charges		\$953,523,240	

Note: AL = assisted living; RC = residential care; MC = memory care community.

SOURCE: Oregon CBC Survey 2018: AL, RC, MC, Table A2

^{*} Rate of respondents applied to non-respondents.

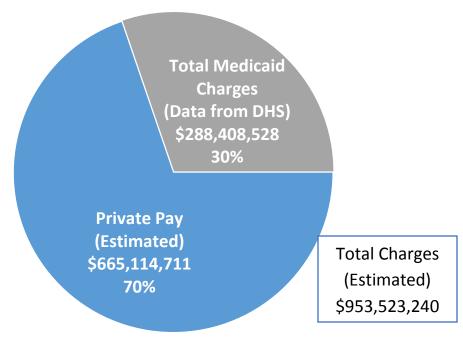


Figure 4.5: Total Annual Charges for Private Pay and Medicaid Residents

- Rates of respondent facilities were applied to non-respondents for occupancy rate and average monthly private pay charges (Figure 4.5).
- The estimated percentage of Medicaid residents was determined by applying the ratio of facilities with a
 Medicaid contract that completed a questionnaire with facilities with a Medicaid contract that did not
 complete a questionnaire, and assumes the same ratio of residents who are Medicaid beneficiaries reside in
 all facilities licensed to accept Medicaid beneficiaries.

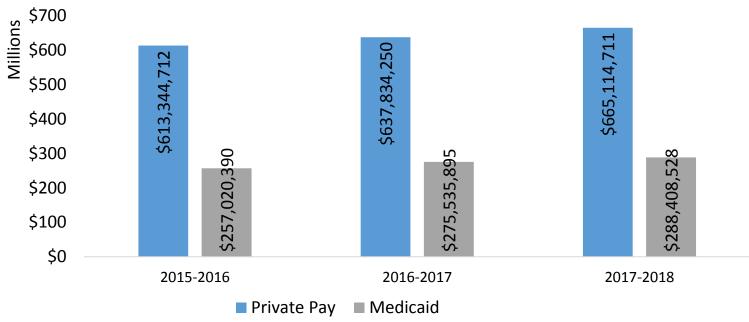


Figure 4.6: Total Annual Charges for Private Pay and Medicaid Residents

 The estimated total annual charges for all CBC settings is based on the average total monthly charge for private pay residents reported by CBC providers, in addition to the amount billed to DHS for Medicaid services.

Section 5 – Residents

Table 5.1: Gender, Age, and Race Distribution of Residents over Time

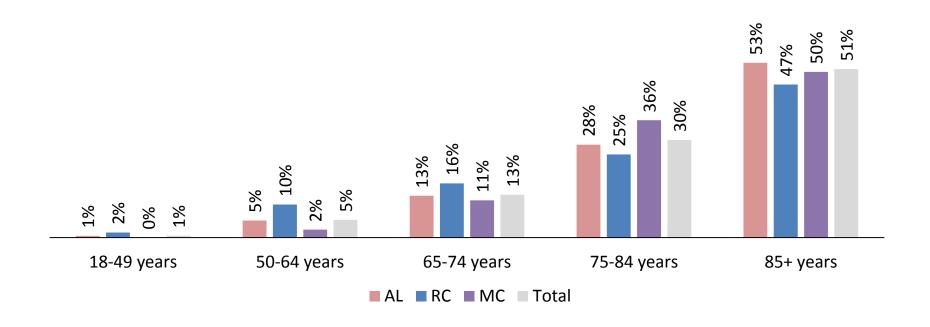
	2015	2016	2017	2018
Gender				
Male	34%	30%	30%	30%
Female	66%	70%	70%	70%
Transgender	<1%	<1%	<1%	<1%
Age Groups				
<18	-	-	-	-
18-49	1%	1%	1%	1%
50-64	6%	6%	5%	5%
65-74	12%	12%	12%	12%
75-84	27%	29%	28%	30%
85 and over	54%	52%	54%	51%
Race ¹				
Hispanic/Latino	-	1%	1%	1%
Not Hispanic/Latino	-	99%	99%	99%
American Indian/Native American or Alaska Native ²	-	<1%	1%	1%
Asian	-	1%	1%	1%
Black/African American ²	-	1%	1%	1%
Native Hawaiian/Other Pacific Islander	-	<1%	<1%	<1%
White	-	91%	90%	90%
Two or more races	-	<1%	<1%	1%
Other or unknown	-	6%	5%	5%

¹ Data from 2015 are not comparable to other years, not included.

² Race/ethnicity labels are slightly different in 2018, added "Native American" and "African American" for the respective categories.

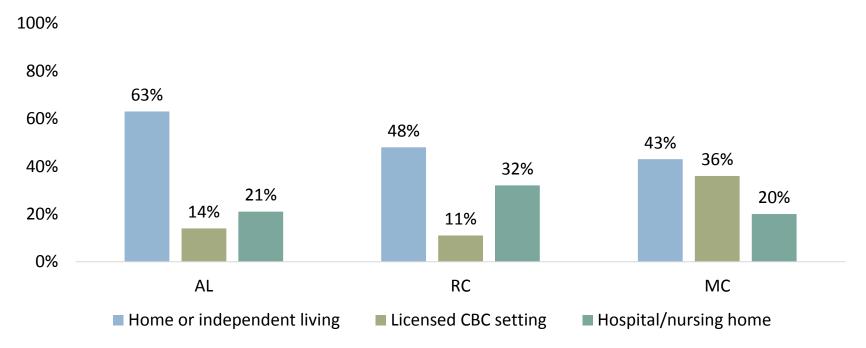
[•] The total number of residents in the 364 responding facilities was 13,888.

Figure 5.1: Age Distribution of Residents across All Community-Based Care Settings



- The average age for all residents across settings was 82 years of age.
- The average age ranged from 43.5 to 94 years across all settings.

Figure 5.2: Most Common Resident Locations Prior to Move-In by Setting Type: 2018



• Residents who moved into AL, RC, or MC were most likely to move from home, although there was variation by setting type (AL: 63 percent; RC: 48 percent; and MC: 43 percent).

Table 5.2: Move-In and Move-Out Locations over Time

	ſ	Vlove-In I	Locations		N	love-Out	Location	S
	2015 ¹	2016	2017	2018	2015 ¹	2016	2017	2018
Home	38%	30%	33%	34%	9%	5%	4%	6%
Home of child/other relative	5%	8%	9%	10%	2%	5%	3%	4%
Independent living	12%	10%	10%	12%	3%	4%	1%	3%
AL/RC	13%	12%	16%	13%	8%	4%	4%	7%
MC	2%	3%	4%	3%	9%	9%	9%	11%
Hospital	10%	10%	7%	7%	4%	3%	2%	2%
AFH	3%	3%	2%	3%	6%	5%	3%	4%
NF or SNF ²	15%	13%	14%	16%	12%	10%	9%	9%
Other ³	3%	4%	1%	1%	4%	1%	1%	2%
Don't Know	-	6%	2%	2%	-	1%	1%	1%
Died at community	-	-	-	-	43%	51%	62%	52%

¹ The time interval covers past year for 2015 and the previous 90 days for the rest.

- The places that residents moved from remained fairly consistent over time although in 2017 there was a greater increase in the number of residents who moved from assisted living than in other years. Most residents moved from home.
- The primary reason a resident left a CBC setting was death.

² Combined for 2015.

³ Includes hospice and psychiatric unit for 2015.

Table 5.3: Length of Stay over Time, All Communities, 2018

	2006 ¹	2007 ¹	2008 ¹	2015 ¹	2016	2017	2018
Short Stay	47%	49%	49%	51%	43%	43%	45%
1-7 days	4%	4%	3%	7%	2%	3%	2%
8-13 days	3%	2%	3%	2%	2%	2%	1%
14-30 days	5%	4%	6%	5%	5%	3%	5%
31-90 days	10%	11%	11%	9%	9%	11%	11%
3-6 months	10%	11%	11%	11%	11%	11%	11%
6-12 months	15%	17%	15%	17%	14%	13%	15%
Long Stay	53%	53%	51%	50%	58%	56%	54%
1-2 years	21%	20%	19%	19%	20%	18%	16%
2-4 years	19%	19%	19%	18%	21%	21%	21%
4+ years	13%	14%	13%	13%	17%	17%	17%

¹Look-back window is the previous year, which is different from the 2016-2018 questionnaires (the last three months). Longer time interval may have introduced larger recall error. Three-month look-back period may be susceptible to seasonality.

Notes: Totals might not add up to 100 percent due to rounding.

- Length of stay appears to be fairly consistent over time.
- Overall, 45 percent of CBC residents had lengths of stay of one year or less, and rates were similar across settings.

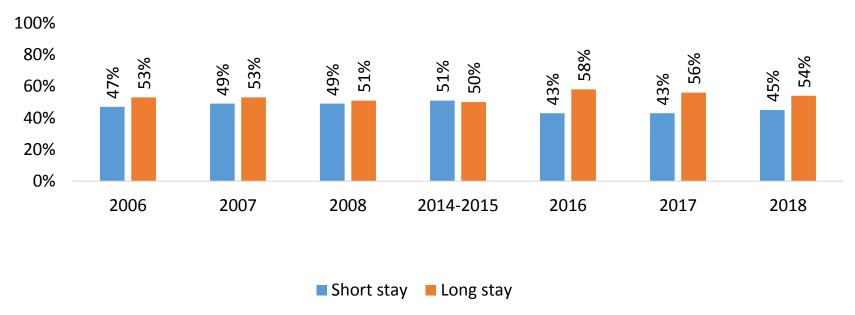
Table 5.4: Move-In and Move-Out Location of Residents, 2018

	А	L		RC	N	IC	То	tal
	In	Out	In	Out	In	Out	In	Out
	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)	% (n)
Home of resident	40 (406)	8 (67)	24 (63)	6 (15)	27 (144)	3 (16)	34 (613)	6 (98)
Home of relative	9 (95)	6 (49)	7 (19)	5 (13)	11 (61)	2 (8)	10 (175)	4 (70)
Independent living	14 (143)	4 (38)	17 (46)	3 (8)	5 (26)	0 (0)	12 (215)	3 (46)
AL/RC	10 (99)	7 (64)	7 (20)	13 (33)	23 (125)	2 (12)	13 (244)	7 (109)
MC	2 (18)	14 (123)	1 (4)	8 (21)	8 (41)	6 (28)	3 (63)	11 (172)
Hospital	5 (51)	2 (18)	9 (24)	2 (6)	10 (54)	2 (12)	7 (129)	2 (36)
AFH	2 (17)	4 (38)	3 (9)	4 (9)	5 (25)	2 (10)	3 (51)	4 (57)
NF	16 (166)	11 (98)	23 (61)	9 (23)	10 (56)	4 (19)	16 (283)	9 (140)
Other	<1 (2)	2 (14)	3 (9)	2 (5)	1 (6)	1 (7)	1 (17)	2 (26)
Died	ı	39(341)	-	47 (119)	-	77 (370)	-	52 (830)
Don't know	2 (18)	2 (16)	4 (12)	0 (0)	1 (4)	<1	2 (34)	1 (17)
Total	1,015	866	267	252	542	483	1,824	1,601

Note. AL = assisted living; RC = residential care; MC = memory care community; AFH = adult foster home; NF = nursing facility.

- Residents were most likely to move to a CBC setting from home.
- MC residents were more likely to move in from AL/RC or from the home of a child or other relative.
- Residents who moved into RC were more likely to move from a nursing facility or skilled nursing facility or an independent living apartment in senior housing.
- Among residents who moved out of a CBC setting, the most common destinations were to MC, a nursing facility, or AL/RC.
- The primary reason a resident left a CBC setting was death.

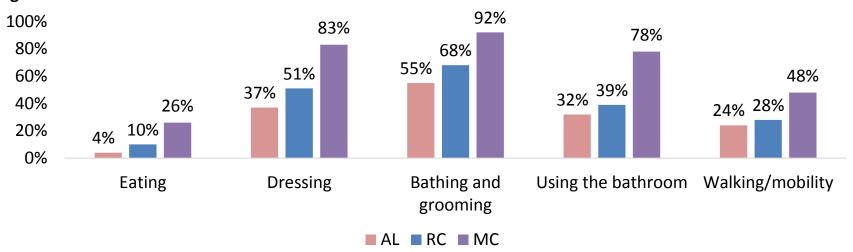
Figure 5.3: Change in Length of Stay for Short- and Long-Term Stays, 2006-2018



Note: Short stay is defined as less than one year, and long stay as more than one year.

• Fifty-four percent of CBC residents who moved out had stayed one year or longer, 45% stayed one year or less.

Figure 5.4: ADL Needs



- The majority of residents receive staff assistance with bathing and/or grooming.
- A larger percent of MC residents, compared to AL and RC residents, receive staff assistance with ADLs.

Table 5.5: ADL Needs over Time

	2015 ¹	2016	2017 ¹	2018
Eating	13%	9%	18%	11%
Dressing	54%	48%	53%	52%
Bathing and/or grooming	68%	65%	67%	67%
Using the bathroom ²	49%	39%	47%	46%
Walking/mobility ³	29%	30%	35%	31%

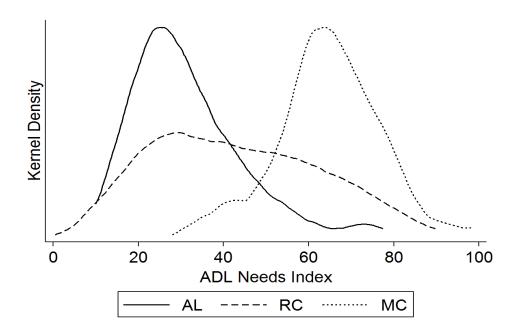
¹ The question related to ADL measured "full assist" and "standby" separately (and differently for 2015 and 2017).

• Assistance with bathing/grooming was the most frequently reported resident need (67 percent), followed by the need for assistance with dressing (52 percent), using the bathroom (46 percent), and walking/mobility (31 percent).

² The question wording in 2015 is somewhat different ("toileting" instead of "using the bathroom").

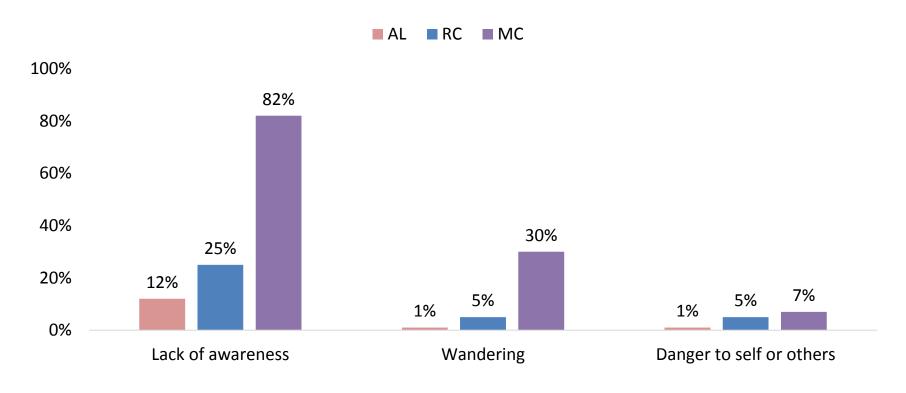
³ Calculated from a question inquiring about resident ambulatory status rather than ADL needs.

Figure 5.5: ADL Needs Index by Facility Type, 2018



- An ADL Needs Index was calculated by taking the average of a proportion of residents with each of the five ADL needs and multiplying it by 100.
- Figure 5.5 presents AL/RC/MC facilities separated distinctly in terms of resident ADL needs. The median score for AL and MC is 29 and 65, respectively.
- The overlap in the middle of the graph shows where AL and MC share a wide range (from 30 up to 80) of the index score.
- RC facilities present diverse resident needs that overlap with both AL and MC. This suggests that RC facilities serve a more diverse set of residents in terms of resident needs, as indicated by the index.

Figure 5.6: Residents Receiving Staff Assistance for Behavioral Health Symptoms



- MC residents were more likely to receive staff assistance with behavioral symptoms.
- Lack of awareness was the major behavioral symptom requiring staff assistance across all community types.

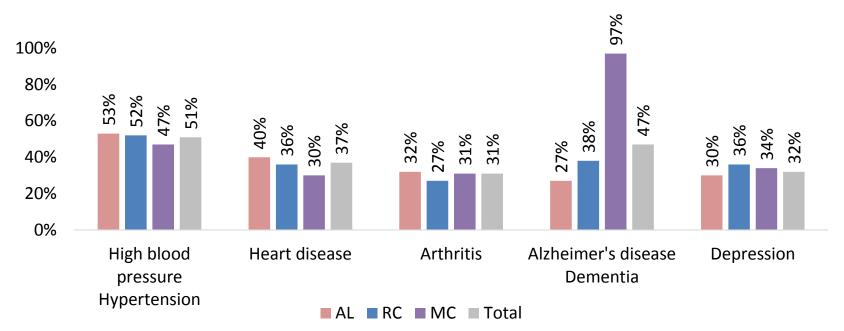


Figure 5.7: Most Commonly Diagnosed Chronic Conditions by Setting

- The five most commonly reported chronic conditions among CBC residents across all setting types were high blood pressure/hypertension (51 percent), Alzheimer's disease or other dementias (47 percent), heart disease (37 percent), depression (32 percent), and arthritis (31 percent).
- Alzheimer's disease and other dementias was highest in memory care (97 percent).

Table 5.6: Resident Chronic Conditions by Community Setting, 2018

	AL	RC	MC	Total
	% (n)	% (n)	% (n)	% (n)
Heart disease	40 (3,020)	36 (874)	30 (1,027)	37 (4,921)
Alzheimer's disease/dementia	27 (2,026)	38 (910)	97 (3,344)	47 (6,280)
High blood pressure/hypertension (HBPH)	53 (3,958)	52 (1,260)	47 (1,617)	51 (6,835)
Depression	30 (2,231)	36 (866)	34 (1,175)	32 (4,272)
Serious mental illness	5 (407)	12 (294)	6 (198)	7 (899)
Diabetes	22 (1,613)	23 (550)	15 (507)	20 (2,670)
Cancer	9 (654)	9 (217)	7 (249)	8 (1,120)
Osteoporosis	21 (1,606)	20 (492)	20 (699)	21 (2,797)
COPD and allied conditions	15 (1,113)	16 (385)	11 (384)	14 (1,882)
Current drug and/or alcohol abuse	2 (142)	2 (54)	0 (15)	2 (211)
Intellectual/developmental disability	2 (118)	2 (54)	2 (59)	2 (231)
Arthritis	32 (2,369)	27 (644)	31 (1,066)	31 (4,079)
Traumatic brain injury	1 (110)	4 (106)	1 (39)	2 (255)
Skin issues	5 (404)	7 (176)	6 (210)	6 (790)
Weight change	4 (325)	4 (105)	7 (227)	5 (657)

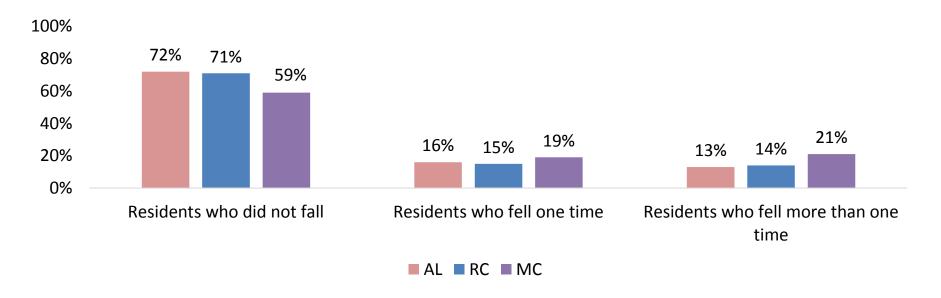
- AL residents were most likely to have HBPH, heart disease, and arthritis.
- RC residents were most likely to have HBPH, Alzheimer's disease/dementia, heart disease, and depression.
- MC residents were most likely to have Alzheimer's disease/dementia, HBPH, and depression.

Table 5.7: Resident Chronic Conditions over Time by Community Setting

		Assiste	d Living			Residen	tial Care	j		Memo	ry Care	
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Heart disease	1	40%	42%	40%	ı	37%	37%	36%	1	32%	30%	30%
Alzheimer's disease/dementia	31%	29%	27%	27%	42%	35%	44%	38%	93%	96%	98%	97%
High blood		53%	55%	53%	_	51%	57%	52%	_	49%	47%	47%
pressure/hypertension (HBPH)	-	33%	3376	3370	-	31%	37%	3270	-	45%	4770	4770
Depression	-	28%	28%	30%	-	32%	35%	36%	-	39%	33%	34%
Serious mental illness	13%	6%	5%	5%	21%	14%	17%	12%	12%	8%	7%	6%
Diabetes	18%	20%	21%	22%	11%	21%	20%	23%	12%	13%	15%	15%
Cancer	ı	7%	9%	9%	ı	7%	7%	9%	ı	7%	7%	7%
Osteoporosis	ı	21%	19%	21%	ı	19%	20%	20%	ı	26%	21%	20%
COPD and allied conditions	ı	21%	15%	15%	ı	16%	17%	16%	ı	12%	11%	11%
Current drug and/or alcohol	_	2%	2%	2%		14%	3%	2%	-	1%	<1%	0%
abuse	-	270	270	270	1	14/0	3%	270	-	170	<1%	0%
DD/IDD	-	1%	2%	2%	ı	3%	2%	2%	-	<1%	1%	2%
Arthritis	ı	37%	37%	32%	ı	31%	33%	27%	ı	39%	27%	31%
Traumatic brain injury	-	-	2%	1%	ı	-	5%	4%	1	-	2%	1%
Skin issues	6%	-	-	5%	6%	1	-	7%	5%	-	-	6%
Weight change	5%	-	-	4%	3%	-	-	4%	8%	-	_	7%

- Overall, the five most commonly reported chronic conditions were heart disease, AD, HBPH, depression, and arthritis.
- In AL, hypertension was most commonly reported followed by heart disease, arthritis, depression and AD.
- In RC, (HBPH) was most commonly reported followed by Alzheimer's disease, depression, heart disease, and arthritis.
- In MC, Alzheimer's disease was most commonly reported followed by HBPH, depression, arthritis, and heart disease.

Figure 5.8: Resident Falls by Setting



Across all CBC settings, 68 percent of current residents did not fall in the prior 90 days. Residents of MC were
more likely to have fallen at least once in the last 90 days compared to residents in AL and RC.

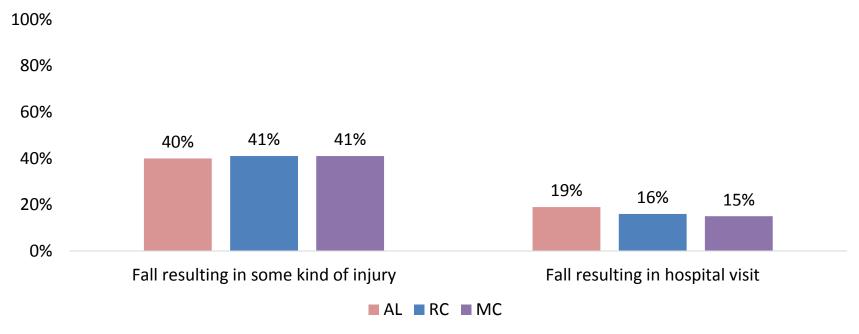
Table 5.8: Resident Falls over Time by Community Setting

	,	Assisted Living			Residential Care			Memory Care				
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Residents with no/zero falls	60%	75%	73%	72%	50%	76%	72%	71%	50%	65%	56%	59%
Residents who fell one time	15%	14%	15%	16%	10%	13%	17%	15%	14%	17%	21%	19%
Residents who fell more than one time	16%	11%	12%	13%	17%	11%	11%	14%	29%	18%	23%	21%
Among residents who fell:												
Fall resulting in injury	-	33%	35%	40%	-	38%	27%	41%	-	43%	40%	41%
Fall resulting in hospital visit	-	17%	18%	19%	-	17%	15%	16%	-	16%	15%	15%

Over time:

- Overall, residents in AL/RC/MC settings did not fall.
- More MC residents experienced a fall than in AL/RC residents.
- Overall, a similar percentage of residents had a fall that resulted in an injury.
- More residents in AL had a fall that resulted in a hospital visit than residents in RC or MC.

Figure 5.9: Falls Resulting in Injury or Hospitalization by Setting



- Among the current residents who fell in the last 90 days, 40 percent suffered an injury. This was similar
 across all settings with 40 percent in AL and 41 percent in RC and MC.
- Of the current residents who fell in the last 90 days, 17 percent went to the hospital (emergency room or admitted) because of the fall.

Table 5.9: Health Service Utilization by Setting, 2018

- date 5 to 1 to 6 to 1 to										
	AL % (n)	RC % (n)	MC % (n)	Total % (n)						
Treated in a hospital emergency room (ER) in the last 90 days	16 (1,174)	15 (362)	17 (603)	16 (2,139)						
Discharged from an overnight hospital stay in the last 90 days	9 (668)	8 (185)	6 (211)	8 (1,064)						
Went back to the hospital within 30 days ¹	24 (162)	21 (39)	24 (49)	24 (250)						
Received hospice care in the last 90 days	5 (359)	6 (136)	12 (429)	7 (924)						

Note: Among residents who were hospitalized overnight in the last 90 days.

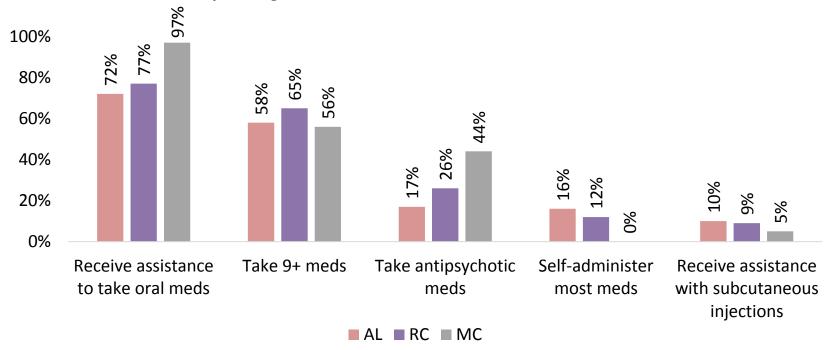
- Overall, 16 percent of residents were treated in an emergency department in the previous 90 days.
- Overall, 7 percent of residents received hospice care in the previous 90 days, with MC having the highest percentage of residents receiving hospice care.

Table 5.10: Health Service Utilization over Time

	2015	2016	2017	2018
Treated in a hospital ER ¹	17%	14%	17%	16%
Discharged from an overnight hospital stay ¹	11%	8%	9%	8%
Went back to the hospital within 30 days after discharge	-	-	27%	24%
Received hospice care	10%	7%	8%	7%

- Resident health service use has remained fairly consistent over time.
- The percentage of residents who returned to the hospital within 30 days of discharge decreased slightly since 2017.

Figure 5.10: Medication Use by Setting



- Overall, 80 percent of residents received staff assistance to take oral medications.
- While fewer AL (72 percent) and RC (77 percent) residents used medication assistance, nearly all MC residents (97 percent) received assistance to take oral medications.

Table 5.11: Medication Use and Assistance by Setting, 2018

	AL % (n)	RC % (n)	MC % (n)	Total % (n)
No medication/injection	3 (202)	1 (21)	1 (20)	2 (243)
Nine or more medications	58 (4,297)	65 (1,591)	56 (1,988)	59 (7,876)
Antipsychotic medication	17 (1,232)	26 (639)	44 (1,576)	26 (3,447)
Self-administer most medications	16 (1,171)	12 (287)	<1 (1)	11 (1,459)
Receive assistance to take oral medications	72 (5,334)	77 (1,900)	97 (3,433)	80 (10,667)
Receive assistance with subcutaneous injection medications	10 (722)	9 (218)	5 (179)	8 (1,119)
Receive injections from a licensed nurse	2 (118)	4 (107)	(107) 2 (60)	
Receive nurse treatments from a licensed nurse	5 (404)	9 (214)	7 (236)	6 (854)

- This table provides additional details about medication usage by residents (see also Figure 5.10).
- The proportion of residents who take no medications at all is very low, at two percent overall.
- Overall, 59 percent of residents take nine or more medications and 26 percent took an antipsychotic medication. Antipsychotic medication use was highest in MC at 44 percent, followed by RC at 26 percent of residents, and 17 percent in AL.

Table 5.12: Medication Use and Assistance over Time

	2015 ¹	2016	2017	2018
No medication/injection	-	2%	1%	2%
Nine or more medications	51%	55%	57%	59%
Antipsychotic medication	24%	26%	27%	26%
Self-administer most medications	-	10%	9%	11%
Receive assistance to take oral medications	-	73%	79%	80%
Receive assistance with subcutaneous injection medications ²	11%	9%	9%	8%
Receive injections from a licensed nurse	-	3%	2%	2%
Receive nurse treatments from a licensed nurse	-	6%	6%	6%

¹ Coverage period for 2015 differs from other years ("typical" instead of "current residents").

- There were minimal changes in medication use and assistance over time.
- Nearly all CBC residents take at least one prescribed medication—only two percent did not take any medications.
- Over half of CBC residents take nine or more medications
- Overall, 80 percent of residents received staff assistance to take oral medications.

² Wording is slightly different in 2015.